ELSEVIER

Plant Science 103 (1994) 247–248

PLANT SCIENCE

Volume contents

Volume 103 (1994)

PHYSIOLOGY AND BIOCHEMISTRY

Effect of salinity on the plasma membrane ATPase from tomato (*Lycopersicon esculentum* Mill.) leaves
C. Wilson, R.A. Clark, G.C. Shearer (Riverside, CA)..... 1–9

The effect of jasmonic acid on the photosynthetic pigments of potato plants grown in vitro
M. Kovač, M. Ravnikar (Ljubljana, Slovenia)..... 11–17

Phosphorylation of membrane proteins in response to heat shock in cultured pear cells
I.B. Ferguson, M.L. Yee, C.B. Watkins, S. Lurie (Auckland, New Zealand; Bet Dagan, Israel).... 19–24

Purification and functional reconstitution of the tonoplast pyrophosphate-dependent proton pump from *Rubus hispidus* cell cultures
E. Perotti, O. Gavin, F. Widmer, A. Chanson (Lausanne, Switzerland)..... 25–31

GENETICS AND MOLECULAR BIOLOGY

Identification of cDNA clones for rice homologs of the human immunodeficiency virus-1 Tat binding protein and subunit 4 of human 26S protease (proteasome)
I. Suzuka, Y. Koga-Ban, T. Sasaki, Y. Minobe, J. Hashimoto (Ibaraki, Japan)..... 33–40

Differential activation of the bean chalcone synthase gene in transgenic tobacco by compatible and incompatible strains of *Pseudomonas solanacearum*
Y. Huang, J.H. McBeath (Alaska, USA)..... 41–49

Biased mitochondrial segregation, independent of cell type used for fusion and of hybrid nuclear DNA content, was found in *Brassica napus* (+) *B. oleracea* somatic hybrids
M. Landgren, E. Sundberg, K. Glimelius (Uppsala, Sweden)..... 51–57

CELL AND TISSUE STUDIES IN VITRO

Effects of inhibitors on phenocritical events of in vitro shoot organogenesis in tobacco thin cell layers
K.-N. Kim, S.G. Ernst (Kyungki-Do, South Korea; Lincoln, NE)..... 59–66

In vitro propagation of an adult tree *Wrightia tomentosa* through enhanced axillary branching
S.D. Purohit, G. Kukda, P. Sharma, K. Tak (Udaipur, India)..... 67–72

Selection, enrichment and initial characterization of an elongated cell culture of tobacco
R.C. Alvarez, S.J. Nissen, S.G. Ernst (Edo Aragua, Venezuela; Lincoln, NE)..... 73–79

The competence of cells for cell division and regeneration in tobacco explants depends on cellular location, cell cycle phase and ploidy level
L.J.W. Gilissen, M.J. van Staveren, J.C. Hakkert, M.J.M. Smulders, H.A. Verhoeven, J. Creemers-Molenaar (AA Wageningen, The Netherlands)..... 81–91

Cryopreservation of embryogenic cell suspensions in *Festuca* and *Lolium* species
Z.Y. Wang, G. Legris, J. Nagel, I. Potrykus, G. Spangenberg (Zürich, Switzerland)..... 93–106

GENERAL

Influence of seed location on cotton fiber development in planta and in vitro
G. Davidonis, O. Hinojosa (New Orleans, LA)..... 107–113

0168-9452/94/$07.00 © 1994 Elsevier Science Ireland Ltd. All rights reserved

PHYSIOLOGY AND BIOCHEMISTRY

Pectin methylesterase from germinating *Vigna sinensis* seeds
A. Nighojkar, S. Srivastava, A. Kumar (Indore, India) 115–120
Isolation and properties of a lectin from the seeds of *Butea monosperma*
S. Wongkham, C. Wongkham, C. Trisonthi, P. Boonsiri, S. Simasathiansophon, K. Atisook (Kohn Kaen, Chiang Mai, Bangkok, Thailand) 121–126
Enzymic activity of melonin, a translational inhibitor present in dry seeds of *Cucumis melo* L.
M.A. Rojo, F.J. Arias, R. Iglesias, J.M. Ferreras, F. Soriano, E. Méndez, C. Escarmís, T. Girbés (Valladolid, Madrid, Spain) 127–134
Effect of temperature on pathways of carbohydrate metabolism in tubers of potato (*Solanum tuberosum* L.)
R. Viola, H.V. Davies (Dundee, UK) 135–143
Immunocytological localization of hydroxynitrile lyases from *Sorghum bicolor* L. and *Linum usitatissimum* L.
H. Wajant, D. Riedel, S. Benz, K.-W. Mundry (Allmandring, Stuttgart, Braunschweig, Germany) 145–154
A second algicidal natural product from the cyanobacterium, *Scytonema hofmanni*
E.-S.J. Lee, F.K. Gleason (St. Paul, MN) 155–160

GENETICS AND MOLECULAR BIOLOGY

Effect of six promoter-intron combinations on transient reporter gene expression in einkorn, emmer and common wheat cells by particle bombardment
S. Takumi, M. Otani, T. Shimada (Ishikawa, Japan) 161–166
Molecular cloning and the nucleotide sequences of two novel cDNAs that encode anionic peroxidases of *Populus kitakamiensis*
K. Osakabe, H. Koyama, S. Kawai, Y. Katayama, N. Morohoshi (Tokyo, Japan) 167–175
Characterization of a wheat class Ib chitinase gene differentially induced in isogenic lines by infection with *Puccinia graminis*
Y.C. Liao, F. Kreuzaler, R. Fischer, H.-J. Reisener, R. Tiburzy (Aachen, Germany) 177–187
Functional studies on a seed-specific promoter from a Brazil nut 2S gene
M.F. Grossi de Sa, D.F. Weinberg, E.L. Rech, L.M.G. Barros, F.J.L. Aragao, K.-O. Holmstroem, E.S. Gander (Brasilia, Brazil) 189–198

CELL AND TISSUE STUDIES IN VITRO

Stable transformation of sunflower using *Agrobacterium* and split embryonic axis explants
J. Malone-Schoneberg, C.J. Scelonge, M. Burrus, D.L. Bidney (Johnston, IA; Reims, France) ... 199–207
Regulation of storage protein synthesis by nitrogen and sulfur nutrients in alfalfa (*Medicago sativa* L.) somatic embryos
F.-M. Lai, B.D. McKersie (Ontario, Canada) 209–221
Role of ethylene on induction and expression of carrot somatic embryogenesis: relationship with polyamine metabolism
J.-P. Roustan, A. Latché, J. Fallot (Toulouse, France) 223–229

GENERAL

Agrobacterium-mediated transformation of poplar using a disarmed binary vector and the overexpression of a specific member of a family of poplar peroxidase genes in transgenic poplar cell
S. Kajita, K. Osakabe, Y. Katayama, S. Kawai, Y. Matsumoto, K. Hata, N. Morohoshi (Tokyo, Japan) 231–239

Author index Volume 103 241
Subject index Volume 103 243–246
Volume contents Volume 103 247–248